



# Acupuncture – a treatment to die for?

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## DECLARATIONS

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Despite considerable doubts about its effectiveness,<sup>1,2</sup> acupuncture has become a popular treatment which is currently being advocated for a wide range of conditions.<sup>3</sup> Many clinicians may think 'Why not? It cannot do any harm!' But is this assumption actually true?

There is now compelling data from several prospective, observational studies demonstrating that roughly 10% of patients experience mild and transient adverse effects after acupuncture.<sup>4,5</sup> In addition, serious complications, including deaths, have been noted with some regularity. Unfortunately, epidemiological data do not exist and we, therefore, have to rely on anecdotes. In the hands of well-trained, experienced acupuncturists, serious events seem to occur rarely. Yet even rare adverse effects are important if they lead to fatalities and responsible therapists should be aware of the risks.<sup>6</sup>

About 90 deaths after acupuncture have been anecdotally documented in the medical literature.<sup>7</sup> Thus, acupuncture has been associated with more deaths than most other 'alternative' therapies except herbal medicine. This does not, of course, necessarily mean that the frequency of such events is higher. More likely is the reflection of the widespread use of acupuncture. Due to the lack of reliable denominator figures, frequencies cannot be estimated. For the UK, they are likely to be close to zero: none of the deaths mentioned above<sup>7</sup> occurred in Britain. Clearly this renders the risk far smaller than that of many conventional treatments.

The fatalities are usually due to an acupuncture needle penetrating a vital organ. This, in turn, can cause pneumothorax cardiac tamponade or major haemorrhage. Most instances of this nature are reported in the Asian literature which, for most of us, is not easily accessible. Two recently reported Chinese cases are fairly typical.

A 44-year-old Chinese woman with a history of diabetes and hypertension consulted an unlicensed acupuncturist in a rural setting. When an acupuncture needle penetrated her heart, the patient instantly complained of severe and alarming symptoms. Instead of taking urgent action, the acupuncturist inserted a further needle into her chest wall. The patient then died almost immediately. At autopsy, two punctures of the right ventricle were found.<sup>8</sup> The second patient was a 26-year-old Chinese woman who consulted an acupuncturist for an unnamed reason. A needle penetrated her lung and the patient died of tension pneumothorax.<sup>9</sup>

The first case<sup>8</sup> exemplifies the importance of adequate training and technique. As with all invasive interventions, complications after acupuncture can occur; but when they do, they must be recognized and promptly treated. Hallmarks of poorly-trained alternative therapists, one might argue, are poor technique and a tendency to overestimate the potential of their own interventions. Instead of initiating life-saving measures, the acupuncturist<sup>8</sup> tragically sought to treat his patient symptoms with more acupuncture. The second case report<sup>9</sup> is also typical but in an entirely different respect. It is devoid of detail to the point of being almost meaningless. Case reports of adverse effects after acupuncture are frequently limited through poor reporting,<sup>10</sup> particularly those published in the Chinese literature. It would obviously be an advance if the quality of reporting case reports could be improved.

As no post-marketing surveillance exists for adverse events of acupuncture, it seems likely that many cases, particularly those occurring in rural areas of China and other Asian countries, remain unreported and unpublished. Thus, the true number of fatalities is anybody's guess. Arguably,

the published data merely depict the tip of the iceberg.

Most complications of acupuncture are, of course, avoidable. Acupuncture is practised not only by physicians but also by less well-trained therapists. In the two cases mentioned above,<sup>8,9</sup> for instance, a likely cause of the injuries is that the acupuncturist failed to insert the needle tangentially over a vital organ. This should be standard knowledge for all acupuncturists. In rural China, where the use of acupuncture is more widespread than in the West, the majority of acupuncturists are not as well-educated as, for instance, members of the British Medical Acupuncture Association. Better education of acupuncturists would be the key to effective prevention.

In conclusion, deaths after acupuncture may be rare but they do occur. The best way to minimize the risk is to make sure that all acupuncturists are well-trained – not just in acupuncture technique but also in recognizing serious adverse events and initiating life-saving measures.

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